

20010906.qrp v02_n304.qrl.20010906

Date: Thu, 6 Sep 2001 19:03:04 EDT
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2304

QRP-L Digest 2304

Topics covered in this issue include:

- 1) [106516] Re: Adjusting a CB antenna to 10m
by "Brice D. Hornback" <bdh@cyberbound.net>
- 2) [106517] Re: Adjusting a CB antenna to 10m
by lhlousek <lhlousek@nvcbell.net>
- 3) [106518] Archives
by Donn Kuse <casey.jay@gte.net>
- 4) [106519] Laws of Canada may be different, jamming of any kind illegal in USA
by "Stuart Rohre" <rohre@arlut.utexas.edu>
- 5) [106520] Re: Powdered Iron Cores!!!!
by "James R. Duffey" <jamesd1@flash.net>
- 6) [106521] Re: Powdered Iron Cores!!!!
by "James R. Duffey" <jamesd1@flash.net>
- 7) [106522] RE: Archives
by "Hare,Ed, W1RFI" <w1rfi@arrl.org>
- 8) [106523] Re: Baluns a new perspective
by "James R. Duffey" <jamesd1@flash.net>
- 9) [106524] Re: Powdered Iron Cores!!!!
by <mjfitz@uswest.net>
- 10) [106525] Re: Adjusting CB antenna to 10m: SOURCE OF WHIPS?
by J38AL@aol.com
- 11) [106526] Re: Adjusting a CB antenna to 10m
by "Brice D. Hornback" <bdh@cyberbound.net>
- 12) [106527] 9/16 0041z, CT1GFK 14008MHz
by "Rod Cerkoney, N0RC" <rod@n0rc.com>
- 13) [106528] Isotron caution
by "Stuart Rohre" <rohre@arlut.utexas.edu>
- 14) [106529] misspelling, I'm sorry!
by "Stuart Rohre" <rohre@arlut.utexas.edu>
- 15) [106530] Re: Need IC Data
by "Michael St. Angelo" <mstangelo@worldnet.att.net>
- 16) [106531] Thanks for Tnhoughts on Antenna Design
by "Kevin Nathan" <k7rx@earthlink.net>
- 17) [106532] NEQRP CW Net, 6 September 01, 8:30 PM EDT, 3.565MHz
by Chuck Ludinsky <cjl@mitre.org>
- 18) [106533] Source for Silver Solder
by Jim Campbell <jim-c@nc.rr.com>
- 19) [106534] Re: Source for Silver Solder

- by "Rob Matherly" <kc0bom@arrl.net>
- 20) [106535] Re: Powdered Iron Cores!!!!
by Bill Coleman <aa4lr@arrl.net>
- 21) [106536] Re: Source for Silver Solder
by "Mike WA8BXN" <hubby2k@hotmail.com>
- 22) [106537] Baluns and tuners
by "Phil (VA3UX)" <phil@vaxxine.com>
- 23) [106538] Re: Powdered Iron Cores!!!!
by Bill Coleman <aa4lr@arrl.net>
- 24) [106539] Re: Source for Silver Solder
by "Phil (VA3UX)" <phil@vaxxine.com>
- 25) [106540] QRP Dinner at the ARRL Southwestern Division Convention
by Jim Lowman <jmlowman@ix.netcom.com>
- 26) [106541] 7J1AJH's pictures from Tokyo ham fair 2001
by jacksonharbor@att.net
- 27) [106542] ARRL Southwestern Division Convention...Swap Meet???
by "Trevor Jacobs" <fxtech@earthlink.net>
- 28) [106543]
by "Carlos Caro" <cjcaro35@hotmail.com>
- 29) [106544] FOX: Winter Foxhunt?
by "Glenn Butzlaff" <gbutzlaff@wi.rr.com>
- 30) [106545] Numbers are wrong
by "Karl F. Larsen" <k5di@zianet.com>
- 31) [106546] OT Light Weight Tripods 4 sale
by Tim ORourke <TORourke@KaiserFT.com>
- 32) [106547] DX on 20 m
by "Sverre Holm \ (LA3ZA\)" <svholm2@online.no>
- 33) [106548] Re: Tuner efficiency
by Bill Coleman <aa4lr@arrl.net>
- 34) [106549] Re: Code Warrior Jr. Adjustment
by k8ff@juno.com
- 35) [106550] Re: Whereis the ZM-2 tuner kit?
by Bill Coleman <aa4lr@arrl.net>
- 36) [106551] Re: ZM-2 toroid test
by Bill Coleman <aa4lr@arrl.net>
- 37) [106552] "Seeing" what a 4:1 balun does
by Beth Gardner / Dan Maguire <bethdan@pacbell.net>
- 38) [106553] Re: Code Warrior Jr. Adjustment
by k8ff@juno.com
- 39) [106554] CHEAP lightweight tripods
by Gary Slagel <gdslagel@yahoo.com>
- 40) [106555] Re: CHEAP lightweight tripods
by Bruce Muscolino <w6toy@erols.com>
- 41) [106556] Re: Tuner efficiency
by "Pastor-KC1DI" <elbc@pivot.net>
- 42) [106557] Re: CHEAP lightweight tripods
by "Mike Yetsko" <myetsko@insydesw.com>
- 43) [106558] VHF Contest/817/Neat Antennas/Major Fun!

- by "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
- 44) [106559] Re: FOX: Winter Foxhunt?
by Bruce Rattray <rattray@gpfn.sk.ca>
- 45) [106560] Vibroplex new Code Mite
by "Ronald A Pfeiffer" <Ronald_A_Pfeiffer@raytheon.com>
- 46) [106561] Small RF Amp & other questions (LONG)
by "Tim A. King Jr." <iflyos@hotmail.com>
- 47) [106562] Re: VHF Contest/817/Neat Antennas/Major Fun!
by "Dan Evans" <n9rla@yahoo.com>
- 48) [106563] MFG CUB
by DK3RED@t-online.de (Ingo, DK3RED)
- 49) [106564] Re: MFG CUB
by "w8diz" <w8diz@fpqrp.com>
- 50) [106565] Re: MFG CUB
by "w8diz" <w8diz@fpqrp.com>
- 51) [106566] Re: MFG CUB
by DK3RED@t-online.de (Ingo, DK3RED)
- 52) [106567] Re: MFG CUB
by DK3RED@t-online.de (Ingo, DK3RED)
- 53) [106568] Re: Baluns a new perspective
by "Mike Branca" <w3irz@att.net>
- 54) [106569] RE: Small RF Amp & other questions (LONG)
by "John L. \"Jake\" Carter" <jakecart@ix.netcom.com>
- 55) [106570] Results of THE SEPTEMBER SPARTAN SPRINT
by Russ Carpenter <russ@natworld.com>
- 56) [106571] motor control
by "John Dorson" <JDORSON@worldshare.net>
- 57) [106572] Re: motor control
by adamvaz@palm.net (Adam Vazquez)
- 58) [106573] Re: motor control
by DK3RED@t-online.de (Ingo, DK3RED)
- 59) [106574] Re: motor control
by "Leon Heller" <leon_heller@hotmail.com>
- 60) [106575] [CONTEST] QRP Contest Calendar - Sep 8-30
by Ken Newman <N2CQ@citnet.com>
- 61) [106576] Riverside QRP Forum this weekend
by "Doug Hendricks" <ki6ds@dph.dpol.net>
- 62) [106577] Re: motor control
by "ZOOM" <kandrparker@sympatico.ca>
- 63) [106578] [ANT]tripod ideas
by "Dave Benham" <dodgeboy@mindspring.com>
- 64) [106579] Ot: For you senior golf fans...
by "Rob Matherly" <kc0bom@arrl.net>
- 65) [106580] Re: motor control - Long
by "Trevor Jacobs" <fxtech@earthlink.net>
- 66) [106581] RE: QRP Dinner at the ARRL Southwestern Division Convention
by "Hare,Ed, W1RFI" <w1rfi@arrl.org>
- 67) [106582] Re: motor control

by J38AL@aol.com

Date: Wed, 5 Sep 2001 18:01:52 -0500
From: "Brice D. Hornback" <bdh@cyberbound.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [106516] Re: Adjusting a CB antenna to 10m
Message-ID: <0df301c1365e\$c1416a40\$6f01a8c0@lwnc1.in.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

THANKS to everyone who sent me suggestions, tips, and advice. I ended up cutting slightly over 3" off the Radio Shack CB whip. I couldn't find the cut-off wheel for my Dremel so I used a hack saw and a vise. Now, the antenna's SWR is VERY low across the entire 10 meter band and it works great!

72 de Brice KA8MAV

Date: Wed, 05 Sep 2001 16:39:29 -0700
From: lhlousek <lhlousek@nvbell.net>
To: bdh@cyberbound.net,
 Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [106517] Re: Adjusting a CB antenna to 10m
Message-ID: <007a01c13664\$01d5c1a0\$650dfea9@nvbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

<<Now, the antenna's SWR is VERY low across the entire 10 meter band and it works great!>>

I don't want to bum you out or anything but I'd be concerned about having very low SWR across the entire 10 meter band. That probably means you have a lot of loss somewhere. If it was low loss system the resonance would generally be much narrower.

Lou W7DZN

Date: Wed, 05 Sep 2001 19:50:56 -0400
From: Donn Kuse <casey.jay@gte.net>
To: "qrp-l@Lehigh.EDU" <qrp-l@Lehigh.EDU>
Subject: [106518] Archives
Message-ID: <3B96BA60.23E9ACCD@gte.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

How do you get the QRP list archives? I too am interested in past info on the Isotron antennas.
Tnx, 73, Donn, WB4ZWT

Date: Wed, 5 Sep 2001 19:01:15 -0500
From: "Stuart Rohre" <rohre@arlut.utexas.edu>
To: "ZOOM" <kandRparker@sympatico.ca>
Cc: <qrp-l@Lehigh.EDU>
Subject: [106519] Laws of Canada may be different, jamming of any kind illegal in USA
Message-ID: <006f01c13667\$0c03edc0\$4e100a0a@rohredt2000>

The ITU probably has something to say about any jamming as in theory once you launch a radio wave, you have no control over where it will do harm.

Definitely, even a part 15 device, if jamming, is illegal in USA, check the FCC rules. All hams should be aware of recent enforcement efforts of Riley Hollingsworth of FCC who nailed some folks for putting signals out that disrupted not only ham freqs. but public safety agencies. They not only lose a ham license but this is federal pen time penalty stuff.

Those ads are for likely very ineffective stuff, possibly sold from offshore, but if found in use will bring the user nothing but civil and criminal prosecution.

Can you imagine someone jamming a 911 call from cell phone for someone who is choking? Wait til the papers get ahold of one of those cases! I don't like cell phone use in a restaurant nor against a driver's ear in the car in front of me, but jamming is not going to fix that.

Another gimmick that does not work is the Cell phone antenna enhancer, which is a pc board with some zig zag traces, sold for \$14 and put in behind the battery.

IF you were so lucky to couple it right, it might enhance the ground plane,

but the phone is already using its case frame, and battery enclosure for that.

Best of all, they include a magic ring, to protect your brain from Cell phone radiation! And you can pick this up at the cash register of you local Walgreen's store!
I had seen it on late night TV, but did not think a reputable retailer would touch it.

Walgreen's does have one good buy for QRP or two: They now have a small silver box of mints, and a red one, for their house brand competing with Altoids tiny tins!

72,
Stuart K5KVH

Date: Wed, 05 Sep 2001 18:10:03 -0600
From: "James R. Duffey" <jamesd1@flash.net>
To: Bill Coleman <aa4lr@arrl.net>
Cc: qrp-l <qrp-l@lehigh.edu>
Subject: [106520] Re: Powdered Iron Cores!!!!
Message-ID: <B7BC1AFB.D4AB%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Bill - Thanks for the note.

I believe that my statement about the cores used for current baluns is correct. The Guanella baluns are voltage baluns, at least the implementations that Hams use.

I think you will have a hard time finding a core with a permeability and loss tangent that will heat beyond the Curie point on 5 W input. I couldn't find one in my Fair-Rite or Amidon literature. My comments on loss were directed only at QRP use, and I made this clear in my post.

Current baluns are usually better than voltage baluns for amateur use. -
Duffey

--

James R. Duffey KK6MC/5
30 Casa Loma Road
Cedar Crest, NM 87008

Date: Wed, 05 Sep 2001 18:15:32 -0600
From: "James R. Duffey" <jamesd1@flash.net>
To: Bill Coleman <aa4lr@arrl.net>, qrp-1 <qrp-1@lehigh.edu>
Subject: [106521] Re: Powdered Iron Cores!!!!
Message-ID: <B7BC1C44.D4AC%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Bill - You have attributed statements to me that I did not make. I was quoting another post and indicated those portions with quote marks "quote". Yet you said that I wrote those things. I did not.

My calculations with 43 beads indicated that 18 inches or more of beads were needed to maintain a shunt impedance over 160 M to 10 M. I recall that 77 material is the same. This is due to the low permeability of 43 material on 160 M and the low permeability of 77 material on 28 MHz. For a higher frequency cutoff fewer beads may suffice. Karl was asking about all band baluns. - Dr. Megacycle KK6MC/5

--
James R. Duffey KK6MC/5
30 Casa Loma Road
Cedar Crest, NM 87008

Date: Wed, 5 Sep 2001 20:17:56 -0400
From: "Hare,Ed, W1RFI" <w1rfi@arrl.org>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [106522] RE: Archives
Message-ID: <125490A005E3D3118C9C00805FC743CC023B381A@KAHLESS>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

I will leave it to someone who is more familiar with the archives to answer your question, but the QST Product Review on the Isotron appeared at:

<http://www.arrl.org/members-only/prodrev/pdf/pr9803.pdf>

73,
Ed Hare, W1RFI
ARRL Lab
225 Main St
Newington, CT 06111
Tel: 860-594-0318
Internet: w1rfi@arrl.org
Web: <http://www.arrl.org/tis>

> -----Original Message-----
> From: Donn Kuse [<mailto:casey.jay@gte.net>]
> Sent: Wednesday, September 05, 2001 7:51 PM
> To: Low Power Amateur Radio Discussion
> Subject: Archives
>
>
> How do you get the QRP list archives? I too am interested in
> past info
> on the Isotron antennas.
> Tnx, 73, Donn, WB4ZWT
>

Date: Wed, 05 Sep 2001 18:29:30 -0600
From: "James R. Duffey" <jamesd1@flash.net>
To: <qrp-l@lehigh.edu>, <k5di@zianet.com>
Subject: [106523] Re: Baluns a new perspective
Message-ID: <B7BC1F89.D4AD%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="ISO-8859-1"
Content-transfer-encoding: quoted-printable

Karl - Thnks for sharing your balun measurements with us.

For further information on why current baluns are better than voltage baluns
for amateur use see W7EL's fine article in The ARRL Antenna Compendium
Vol.=A01.

Lew McCoy W1ICP used a 4:1 balun in his original article on The Ultimate
Transmatch, and tuner manufacturers, like MFJ, followed along without
question. Work by W7EL, W2FMI, and W8JI have shown that this view is wrong.
W7EL's dates from 16 years ago.

The 2001 ARRL Handbook does come out and say that a 1:1 current balun is usually preferred for most amateur applications, Why it took the ARRL so long to believe their own Technical Advisors is still a good question. - Dr=

Megacycle KK6MC/5=20

--=20

James R. Duffey KK6MC/5

30 Casa Loma Road

Cedar Crest, NM 87008

Date: Wed, 05 Sep 2001 19:29:52 -0500
From: <mjfitz@uswest.net>
To: qrp-1@Lehigh.EDU
Subject: [106524] Re: Powdered Iron Cores!!!!
Message-ID: <3B96C380.6F12B531@uswest.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I am enjoying the thread on baluns fellas... but some of you guys might read Sevick's "Building and Using Baluns and Ununs" ...just a friendly suggestion, mind you... There is a lot to learn from his experiments and studies working with these devices, and he also reviews the major works and types developed from the very balun-beginning (ain't I poetic?). He also, of course, discusses their merits and shortcomings, according to him anyways...

You might learn, for instance, that the best ferrite cores to use (best efficiency) have permeabilities of less than 300... that is, 43 material is mucho, mucho lossy for the HF bands...

He also has a chapter on baluns for tuners... and he does favor the use number 2 (yup, those nasty red cores Karl!) material, but he uses larger cores (like 4 inch) and more turns to increase the efficiency in these higher-power (not QRP) designs.

I have been reading this work (among others like Maxwell's "Reflections II") these summer evenings just before I turn out the light. Sometimes I dream of huge antennas like the ones on the big hill at the old SAC world-wide HF communications detachment not far from here... multiple

giant LPs in phased array, monopoles the size of small
skyscrapers, long wires running beyond the horizon...but...
you always wake up and look out the window...

Mike NOMF

Date: Wed, 5 Sep 2001 20:35:51 EDT
From: J38AL@aol.com
To: qrp-1@lehigh.edu
Subject: [106525] Re: Adjusting CB antenna to 10m: SOURCE OF WHIPS?
Message-ID: <60.13670480.28c81ee7@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Radio Shack sells a 102" stainless steel whip for \$15.00. It has 3/8 - 24
threads. I have one on my car for 10 meters. It was in stock at the RS where
I bought it.

73, Al N2ZHS
Scotia, NY

In a message dated 9/5/01 6:41:04 AM Eastern Daylight Time,
myetsko@insydesw.com writes:

<< I'd have to check the price, but Radio Shack carries
replacement whips. I think the longer whips are special
order, but the 'standard' 40" or so whip used to be
standard stock at about \$5 or so. In fact, I bought
one to build my mobile antenna from last April's
QST.

Other than that, you'd have to just price steel stock
from a local supplier.

Mike

----- Original Message -----
From: <N0BN@aol.com>

> Speaking of cutting a CB antenna for 10 M, does anyone know of
inexpensive
> source for such rods of various lengths suitable for such adaptation

other
> than Ham or CB shops?
>
> Daniel n0bn
>>

Date: Wed, 5 Sep 2001 19:36:12 -0500
From: "Brice D. Hornback" <bdh@cyberbound.net>
To: <lhlousek@nvhbell.net>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [106526] Re: Adjusting a CB antenna to 10m
Message-ID: <0e1501c1366b\$eedac5c0\$6f01a8c0@lwrnc1.in.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Ok... what I meant was the antenna has a enough adjustment to the whip to have low SWR across the entire band. I have it currently tuned for 28.100.0 where I have a 1:1 but if I go up to 29.000.0 it's over 3:1 unless I adjust it.

72 de Brice KA8MAV

----- Original Message -----
From: lhlousek <lhlousek@nvhbell.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Wednesday, September 05, 2001 6:39 PM
Subject: Re: Adjusting a CB antenna to 10m

> <<Now, the antenna's SWR is VERY low across the entire 10 meter band and
> it works
> great!>>
>
> I don't want to bum you out or anything but I'd be concerned about
> having very low SWR across the entire 10 meter band. That probably
> means you have a lot of loss somewhere. If it was low loss system the
> resonance would generally be much narrower.
>
> Lou W7DZN
>
>

Date: Wed, 5 Sep 2001 18:49:22 -0600
From: "Rod Cerkoney, N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [106527] 9/16 0041z, CT1GFK 14008MHz
Message-ID: <017001c1366d\$c54e6930\$6401a8c0@c919125b>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

TOZE, OLHAO, PORTUGAL (a new country for me)

599 both ways.

A the joy of DX with simple homemade QRP equipment, I was using my
NC20--still a nice little rig.

Given the recent solar activity, 20m DX should be pretty good tonight.

73, Rod N0RC
Ft Collins, CO

Date: Wed, 5 Sep 2001 19:55:34 -0500
From: "Stuart Rohre" <rohre@arlut.utexas.edu>
To: <fern@ke4mai.com>
Cc: <qrp-1@Lehigh.EDU>
Subject: [106528] Isotron caution
Message-ID: <009a01c1366e\$a28a4e40\$4e100a0a@rohredt2000>

Fernie,
I would like to point out that the person who had the Isotron was
essentially using it outside on a patio or balcony.

I would not put one in a confined attic, or you will hear even less than he
did, which was "I did not hear as well as the other stations were hearing"
or words to that effect.

But, even more dangerous, is that small footprint high E field antennas such
as this, have a LOT of voltage up to hundreds concentrated on very small
area of their structure. There is a real danger of arcing to nearby
conductors such as foil backed insulation, air ducts, wiring, or ventilator
fan shrouds in an attic. A conductor does not have to be grounded to be an
arc target for high RF field emitters.

Even the nailing plates on factory made trusses in newer home construction could be close and have an arc develop.

If you have no place to put it but an attic, you might confine yourself to 20m or higher, to have a small footprint one.

We have been developing small HF antennas, and they have a very intense near field and are a shock hazard when we work around them. These are only two feet tall.

Perhaps I can get the inventor of ours to finally publish a ham paper on them, when the sponsor approves open publication. There are patent issues at work, and we have to respect that. But at least, maybe I can get some voltage field measurements from the project.

ANY antenna will only work to the optimum when it is outside in the clear. That unfortunately is the law of physics that cannot be repealed, even if you manage to reduce the size of the radiating structure. Look up the papers by Wheeler and others on small antennas. Good resources include the Proceedings of the Institute of Radio Engineers, back during WW2, and RCA Reviews, both available at college technical libraries. More modern publications of papers are ANTENNAS and PROPAGATION special interest group of IEEE, also in libraries at Engineering Colleges.

72,
Stuart K5KVH

Date: Wed, 5 Sep 2001 19:56:49 -0500
From: "Stuart Rohre" <rohre@arlut.utexas.edu>
To: <fernle@ke4mai.com>
Cc: <qrp-l@Lehigh.EDU>
Subject: [106529] misspelling, I'm sorry!
Message-ID: <00a001c1366e\$cf750620\$4e100a0a@rohredt2000>

Fernle,
I need new bifocals!
Sorry!
Stuart

Date: Wed, 5 Sep 2001 21:17:55 -0400
From: "Michael St. Angelo" <mstangelo@worldnet.att.net>

To: <qrp-1@Lehigh.EDU>
Subject: [106530] Re: Need IC Data
Message-ID: <002e01c13671\$c2d18580\$2081590c@5b1e3>

I believe these DELCO surplus parts were sold by BG Micro.

They are equivalent to National Semiconductor LM3820.

Mike N2MS

Date: Wed, 5 Sep 2001 18:37:58 -0700
From: "Kevin Nathan" <k7rx@earthlink.net>
To: <qrp-1@lehigh.edu>
Subject: [106531] Thanks for Tnhoughts on Antenna Design
Message-ID: <001501c13674\$8f969040\$6501a8c0@mindspring.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Thanks to all who wrote concerning maintaining resonance when erecting
antennas in different locations. 72
Kevin, K7RX

Date: Wed, 05 Sep 2001 21:49:55 -0400
From: Chuck Ludinsky <cjl@mitre.org>
To: neqrp@jonal.net, qrp-1@lehigh.edu
Subject: [106532] NEQRP CW Net, 6 September 01, 8:30 PM EDT, 3.565MHz
Message-ID: <3B96D643.23744C8E@mitre.org>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The New England QRP Club's WQ1RP CW net meets again Thursday night, 6
September 2001, at 8:30 PM EDT (0030Z, 7 September 01) on or near 3.565
MHz. Net control operator for this week's 80M session will be Chuck,
K1CL, operating from Chelmsford, MA.

Net control operator for last week's net was John, K1RC, operating from
Dracut, MA. John reported:

"The NEQRP CW net was held tonight at 0030z, on 3.565 mhz. Check ins were:

W1CGI	Paul	Cape Cod, Ma.	1watt	FT-817
N1ZSW	Ron	Worcester, Ma.	FT-817	
KM1Z	Fran	Burlington, VT.		
K1RC	John (net op)	Dracut, Ma.	5watts	Drake C-line

QRN was very high (S9+ 10 to 20 over) but all checkins were good copy.

Thanks to all who checked in and everyone who braved the noise to listen to the net.

See you all next week on the net.

72/73,
John K1RC"

Shouldn't be anywhere near as noisy this Thursday, so please stop by and say hello to everyone on the net.

72 DE K1CL,
Chuck.

Date: Wed, 05 Sep 2001 22:00:08 -0400
From: Jim Campbell <jim-c@nc.rr.com>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [106533] Source for Silver Solder
Message-ID: <3B96D8A7.9ADCA50C@nc.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I have a K2 on the way (Very Big Smile). I have heard that Elecraft recommends the use of silver solder, but doesn't include it with the kit. Can some kind soul recommend a source for such? I'm located in the state capital, so if I knew for example that a jewelry supply house has silver solder, there is probably one locally. I would prefer not having to order it but if that is the only choice, so be it.

Thanks,

Jim Campbell
W4BQP

Date: Wed, 5 Sep 2001 21:05:13 -0500
From: "Rob Matherly" <kc0bom@arrl.net>
To: <jim-c@nc.rr.com>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [106534] Re: Source for Silver Solder
Message-ID: <00b701c13678\$5eb54d00\$2b11a541@intern01>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Don't quote me on this, but I think I may have gotten some at wal-mart once... It was either that or all aluminum... Can't remember which! Whatever it was, it was lead free.

72/73
Rob, kc0bom

----- Original Message -----
From: Jim Campbell <jim-c@nc.rr.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Wednesday, September 05, 2001 9:00 PM
Subject: Source for Silver Solder

I have a K2 on the way (Very Big Smile). I have heard that Elecraft recommends the use of silver solder, but doesn't include it with the kit. Can some kind soul recommend a source for such? I'm located in the state capital, so if I knew for example that a jewelry supply house has silver solder, there is probably one locally. I would prefer not having to order it but if that is the only choice, so be it.

Thanks,

Jim Campbell
W4BQP

Date: Wed, 5 Sep 2001 22:06:21 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: "James R. Duffey" <jamesd1@flash.net>
Cc: "qrp-l" <qrp-l@lehigh.edu>

Subject: [106535] Re: Powdered Iron Cores!!!!
Message-ID: <20010906020720.QKRZ20138.imf07bis.bellsouth.net@[192.168.0.20]>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 9/5/01 8:10 PM, James R. Duffey at jamesd1@flash.net wrote:

>I believe that my statement about the cores used for current baluns is
>correct. The Guanella baluns are voltage baluns, at least the
>implementations that Hams use.

No, the guanella baluns are NOT voltage baluns. You might think that,
seeing a bifilar winding and all.

However, the hookups are different. Connect it one way, and you have a
Guanella 1:1 current balun. Another way, you have a classic 4:1 voltage
balun. Same windings, different wiring. (Although you might want to
change the number of windings and core type for each)

>I think you will have a hard time finding a core with a permeability and loss
>tangent that will heat beyond the Curie point on 5 W input. I couldn't find
>one in my Fair-Rite or Amidon literature. My comments on loss were directed
>only at QRP use, and I made this clear in my post.

Perhaps hard to do with perfectly matched loads, but with complex
impedances -- all bets are off!

>Current baluns are usually better than voltage baluns for amateur use. -

Agreed.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Thu, 06 Sep 2001 02:07:53
From: "Mike WA8BXN" <hubby2k@hotmail.com>
To: jim-c@nc.rr.com, qrp-1@Lehigh.EDU
Subject: [106536] Re: Source for Silver Solder
Message-ID: <F273d7KKQpQq5pneeFU00007d18@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Jim - They don't want silver solder, maybe some solder with some silver in it --- you can get that at Radio Shack. That is what I used in a K1 and a K2 and other stuff. But discussion on the matter has seemed to suggest that normal solder will probably be just fine too.

73 - Mike WA8BXN

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Wed, 05 Sep 2001 22:09:16 -0400
From: "Phil (VA3UX)" <phil@vaxxine.com>
To: Qrp-1@Lehigh.EDU
Subject: [106537] Baluns and tuners
Message-ID: <5.0.2.1.0.20010905213407.009faec0@vaxxine.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Regarding the original message below, neither balun is better. One is designed to produced equal voltages, the other is designed to produce equal currents. The application determines which one you choose. For antenna work, we generally want to force equal currents so the current balun is the one to choose. But again, it depends on the antenna.

With so much discussion and controversy about baluns and tuners it should be apparent that baluns and tuners are a bad mix. With so much propensity here to use balanced feedlines yet struggle with an typical un-balanced tuner feeding a troublesome balun, perhaps many here would be interested in a better but less obvious (?) approach : feed your radio into a current balun that then feeds a balanced tuner. I was going to scan Rich Measure's 1990 QST article on the "Balanced Balanced Antenna Tuner" and make it available to interested parties. But I found that Rich has the original manuscript on his website. Go here to read more about it :

<http://www.vcnet.com/measures/>

Look for the link to "A Balanced Balanced Antenna Tuner". This approach makes so much sense that you may kick yourself for not having thought of it sooner. Some NOTES : 1) Rich shows a 1:1 choke balun made with coax, which works fine. This is a current balun. You can use a ferrite bead balun in place of it with the same results. 2) Rich's diagrams show DC motors for turning the inductors and caps. You can eliminate the motors and use knobs and hand cranks instead. The photo in the original article showed a single crank and turns counter to simultaneously drive the two roller inductors,

and a single knob for capacitor adjustment. The original photo's are worth looking at so you can see how the two roller inductors are ganged together. 3) Rich's work is QRO oriented. Rich is QRO oriented. You can scale down the component sizes for QRP work. Small roller inductors are plentiful (or they were the last time I went looking for them) and cheap at flea markets. The QRO sized rollers Rich mentions are neither cheap or plentiful. Check Fair Radio Sales' website for parts.

This is a very good article. Read it carefully. I built one of these tuners in mid 1990 and it was excellent. No more farting around with baluns in the output, baluns that really can't do what we what want them to do. I sold the tuner two years later, wished later that I hadn't, and haven't gotten around to building another one.

Phil

At 02:06 PM 9/5/2001 -0600, Karl F. Larsen wrote:

>Well ladies, heard a lot about baluns on this list, and their was a lot of
>things said about the joys of either the 4:1 "Voltage" and the 1:1
>"Current" types. You can find the circuits for both in the ARRL Hanbook
>and no-where do they tell you one is better than the other.

>

>In my measurment of the MFJ garden variety C-L-C tuner I have discovered
>an intersting thing. This tuner is very tolerant of loads that are larger
>than 50 ohms. At loads lower than 50 ohms it sucks! The thing is very
>difficult to adjust, and when adjusted it has high loss. So, if there is a
>way to make loads as high as possible, it should be used.

>

>MFJ uses a 4:1 balun and it's not the best choice. This balun, when it's
>working, reduces the load impedance by a factor of 4. In other words if
>the balanced feedline had an impedance of 40 ohms, it gives the tuner a 10
>ohm load! The tuner doesn't like that.

>

>Also the 4:1 balun breaks down under low impedance loads. I was able to
>ground the center point of 2 100 ohm resistors as a balanced load and it
>had zero effect on the tuner. With 2 10 ohm resistors the center point
>shifted all over the map. It changed the SWR of the Vectronics Analyser
>from 1:1 to 6.7:1!

>

>In summary, let me say without any bias that it is better to have a 1:1
>balun in an MFJ 945B tuner. Why MFJ puts a 4:1 into them is a mystery
>since they are well built and very good tuners. I will look into changing
>mine to 1:1 and perhaps I will learn why MFJ uses 4:1....:-)

>

>Check out my web page for new data that I have gathered. Finally found
>some tuner loss and will talk about that there.

>

>--

>Yours Truly,
>
> - Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
> <http://www.qsl.net/k5di/>

Date: Wed, 5 Sep 2001 22:14:18 -0400
From: Bill Coleman <aa4lr@arrl.net>
To: "James R. Duffey" <jamesd1@flash.net>, "qrp-l" <qrp-l@lehigh.edu>
Subject: [106538] Re: Powdered Iron Cores!!!!
Message-ID: <20010906021517.PNCY4203.imf13bis.bellsouth.net@[192.168.0.20]>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 9/5/01 8:15 PM, James R. Duffey at jamesd1@flash.net wrote:

>My calculations with 43 beads indicated that 18 inches or more of beads
>were needed to maintain a shunt impedance over 160 M to 10 M.

Yes, I was designing for the narrower range of 7 to 30 MHz. 43 material
really isn't that suitable for 160m.

>I recall that
>77 material is the same. This is due to the low permeability of 43 material
>on 160 M and the low permeability of 77 material on 28 MHz. For a higher
>frequency cutoff fewer beads may suffice.

Amidon doesn't list the 77 material in the frequency versus impedance
graph, but if you use the 73 material (which is very similar to 77),
you'll find it has peak impedance at about 25 MHz. At 2 Mhz, it's
impedance is half that at 25 MHz.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Wed, 05 Sep 2001 22:13:33 -0400
From: "Phil (VA3UX)" <phil@vaxxine.com>
To: qrp-l@Lehigh.EDU

Subject: [106539] Re: Source for Silver Solder
Message-ID: <5.0.2.1.0.20010905221030.009fdc30@vaxxine.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

The latest Canadian Radio Shack flyer has a special on 2% solder. It's an indication that some RS outlets in the states might have it also. Also available from many of the larger mail order places. And, small quantities at reasonable prices were available from Rich Measures (www.vcnet/measures/) but you'll have to contact him about it.

Phil

>----- Original Message -----

>From: Jim Campbell <jim-c@nc.rr.com>
>To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
>Sent: Wednesday, September 05, 2001 9:00 PM
>Subject: Source for Silver Solder

>

>

>I have a K2 on the way (Very Big Smile). I have heard that Elecraft
>recommends the use of silver solder, but doesn't include it with the
>kit. Can some kind soul recommend a source for such? I'm located in
>the state capital, so if I knew for example that a jewelry supply house
>has silver solder, there is probably one locally. I would prefer not
>having to order it but if that is the only choice, so be it.

>

>Thanks,

>

>Jim Campbell

>W4BQP

Date: Wed, 05 Sep 2001 20:09:06 -0700
From: Jim Lowman <jmlowman@ix.netcom.com>
To: QRP-L@lehigh.edu
Subject: [106540] QRP Dinner at the ARRL Southwestern Division Convention
Message-ID: <3B96E8D2.73221DE@ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Last message on this topic, I promise!

Our dinner guests now number 29. I had inadvertently left Jim's (KK6MC/5) daughter, Barbara, off the list.

Also, I failed to mention a special guest, Ed Hare, W1RFI, who has generously offered to speak once on the QRP Forum and twice more on the other forums; once again on Saturday, and again on Sunday. Ed will be among the 29 QRP faithful holding court at the Friday evening dinner.

72 de Jim - AD6CW

Date: Thu, 06 Sep 2001 04:00:08 +0000
From: jacksonharbor@att.net
To: qrp-1@lehigh.edu
Subject: [106541] 7J1AJH's pictures from Tokyo ham fair 2001
Message-ID:
<20010906040008.YECG21828.mtiwmhc24.worldnet.att.net@webmail.worldnet.att.net>

Hello -

I don't know if everyone saw this message:

<<http://www.e-discounter.net/qrparki/messages/2055.html>>

from the QRP-F forum. Jim - 7J1AJH - had some neat QRP related pictures on his web site:

<<http://www.onjapan.net/2001/hamfair/qrp.html>>

from the Tokyo ham fair 2001 - the Firefly concept is really a hoot!

Thanks for the pictures and comments, Jim.

Best Regards,

Chuck Olson, WB9KZY
Jackson Harbor Press
<http://jacksonharbor.home.att.net/ham.htm>

Chu

Date: Wed, 5 Sep 2001 21:08:56 -0700
From: "Trevor Jacobs" <fxtech@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [106542] ARRL Southwestern Division Convention...Swap Meet???

Message-ID: <00ee01c13689\$a6d3c380\$9f0df4d8@tjacobs>

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Hi Guys and Gals,

Does anyone know if there is going to be a swap meet at the convention? I'm going to try to make it down to Riverside either Friday or Saturday to finally meet with some of you. Plus Doug's got my ears perked about the announcement Hi! Wonder if it has anything to do with that full featured Surface Mount rig we keep hearing about? Anyway, let me know if any of you have information on the likelihood or not of a swap meet. Thanks and take care...

72/73
Trev
KG6CYN

Date: Wed, 05 Sep 2001 22:10:35 -0600

From: "Carlos Caro" <cjcaro35@hotmail.com>

To: qrp-l@Lehigh.EDU

Message-ID: <F4mRBaYFkuutSgc0rBL000087e9@hotmail.com>

Mime-Version: 1.0

Content-Type: text/html

<html><div style='background-color:'></div><br clear=all><hr>Get your FREE download of MSN Explorer at http://explorer.msn.com
</html>

Date: Thu, 6 Sep 2001 06:33:26 -0500

From: "Glenn Butzlaff" <gbutzlaff@wi.rr.com>

To: <qrp-l@lehigh.edu>

Subject: [106544] FOX: Winter Foxhunt?

Message-ID: <000a01c136c7\$befb0c00\$d3bf1d41@wi.rr.com>

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Just curious; when does the winter foxhunt start? I didn't see a schedule on the

official site. Just wondering how much time I have to get a decent 40m antenna up!

Glenn Butzlaff, WE9K
Cudahy, WI

Date: Thu, 6 Sep 2001 05:57:24 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: <qrp-l@lehigh.edu>
Subject: [106545] Numbers are wrong
Message-ID: <Pine.LNX.4.33.0109060551100.1449-100000@cannac.fun>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Well after some simple math writing it's clear I need to refine my dc voltage reading. I found what seemed to be a small voltage difference between the input and the output. But that small voltage difference is SQUARED and divided into the resistance to get power. I find by re-measuring with a 50 ohm Unbal load that there is loss going through the tuner.

I will fix the web page before leaving on my backpack trip.

--
Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
<http://www.qsl.net/k5di/>

Date: Thu, 6 Sep 2001 07:56:13 -0400
From: Tim ORourke <TORourke@KaiserFT.com>
To: "'qrp-l@Lehigh.EDU'" <qrp-l@Lehigh.EDU>
Subject: [106546] OT Light Weight Tripods 4 sale
Message-ID: <910D8E9955E3D411B3AE00A0C9319CB80C63E0@MAIL>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

I ran across a light weight tripod similar to the Outbacker tripod but much lighter on weight and pocket book.
I have used mine along side the outbacker tripod and find no difference except weight. The manufacturer is Lakewood antennas, the tripod is not

listed on web as they are not sure about demand. I purchased 2 additional ones at Shelby because I knew others had been frustrated by not finding on web. Will sell for \$80 + shipping. BTW it appears if they continue with these the price will likely go up. E-mail off list to KG4CHX@Telocity.com
72

Date: Thu, 6 Sep 2001 14:06:43 +0200
From: "Sverre Holm \ (LA3ZA\)" <svholm2@online.no>
To: <qrp@yahooogroups.com>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Cc: <rod@n0rc.com>
Subject: [106547] DX on 20 m
Message-ID: <001501c136cc\$67ed0760\$0100a8c0@Master>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

I can confirm the good conditions on 20m.=20

I worked JA from Oslo, Norway last night. I received a 449 from Hitachi, = Japan on my K2 with 5 W output power and an 85 m horizontal loop.

Sverre=20
Oslo, Norway

73 de LA3ZA
<http://www.qsl.net/la3za>

----- Original Message -----=20
From: "Rod Cerkoney, N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Thursday, September 06, 2001 2:49 AM
Subject: 9/16 0041z, CT1GFK 14008MHz

> TOZE, OLHAO, PORTUGAL (a new country for me)
>=20
> 599 both ways.
>=20
> A the joy of DX with simple homemade QRP equipment, I was using my
> NC20--still a nice little rig.
>=20
> Given the recent solar activity, 20m DX should be pretty good tonight.
>=20
> 73, Rod N0RC

> Ft Collins, CO

>=20

>=20

Date: Thu, 6 Sep 2001 08:11:42 -0400

From: Bill Coleman <aa4lr@arrl.net>

To: <k5di@zianet.com>,

"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [106548] Re: Tuner efficiency

Message-ID: <20010906121242.DME016715.imf00bis.bellsouth.net@[192.168.0.20]>

Mime-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"

On 9/3/01 12:26 PM, Karl F. Larsen at k5di@zianet.com wrote:

>Until you consider Q of the tuner elements it's hard to see how
>there can be loss in a good L-C or C-L-C tuner. But after reading the
>sections of the ARRL Handbook dealing with Q you learn (or re-learn) that
>there are hidden resistances in the inductor that at HF frequencies cause
>most of the loss. Capacitors have this hidden resistance too but they are
>so small at HF frequencies you can ignore the very small effect.

Tuner losses are usually inconsequential.

If tuner losses were significant, then QRO operators would have considerable heat to dissipate inside the tuner. A 1500 watt signal passing through a tuner with a 1 dB loss would have to dissipate 150 watts inside the tuner. If you've ever touched a 150 watt light bulb, you know that's a lot of heat.

Feedline losses usually far outstrip tuner losses, even with open wire.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net

Quote: "Not within a thousand years will man ever fly!"

-- Wilbur Wright, 1901

Date: Thu, 6 Sep 2001 08:39:40 -0400

From: k8ff@juno.com

To: qrp-1@lehigh.edu
Subject: [106549] Re: Code Warrior Jr. Adjustment
Message-ID: <20010906.084002.-792333.0.k8ff@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

Hi Alex, Thanks for the purchase of the "Code Warrior"! I will try to help you set it up correctly. I agree that the enclosed paperwork leaves lots of room for improvement.

People ask me to align and set up the keys at hamfests all the time. Let me go through the procedure that I use.

1. Make sure the pivots are tight but still allow free movement.
2. Loosen the contact posts and the magnetic block.
3. Center the magnetic block and make sure its straight and parallel to the sides of the base. Then re tighten the screws in the block.
4. Look down from directly above the key, loosen the jam nuts on the paddle stop screws. Screw the stop screws in or out so that when at rest the paddle arms are parallel and look symmetrical. Now tighten the jam nuts.
5. Now align the Contact posts, making sure that the contacts match while allowing some adjustment of the spacing. When aligned securely tighten the contact post screws. This completes the alignment. Now all that remains is the touchy feely adjustments. I like the tension adjustment screws backed out tightly against the arms and very little distance between the contacts. Play with the distance until you are satisfied and lock down the jam nuts.

Good luck and look for me on 20 CW evenings with the K1 and a "VENUS" prototype working DX over the North Pole.

73, Wayne K8FF
NORCAL/Code Warrior/Code Mite/Venus designer

On Wed, 5 Sep 2001 12:39:46 -0400 "Alex Turner" <aturner13@triad.rr.com> writes:

- > Can someone point me to a web site, other than Vibroplex, where there
- > is
- > some adjustment directions for the Code Warrior. The one I tried at
- > the
- > hamfest felt great, but the one I bought doesn't feel quite "right".
- > Reading the Vibroplex supplied instructions leaves much to be
- > desired. It
- > doesn't have to be a web site if someone can tell me how to adjust
- > it.
- > I'm hoping a decent key will continue to spur my interest in cw.

>
> thanks
> Alex N4BYJ
>

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<http://dl.www.juno.com/get/tagj>.

Date: Thu, 6 Sep 2001 08:33:57 -0400

From: Bill Coleman <aa4lr@arrl.net>

To: <k5di@zianet.com>,

"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [106550] Re: Whereis the ZM-2 tuner kit?

Message-ID: <20010906123457.ZWRU18461.imf05bis.bellsouth.net@[192.168.0.20]>

Mime-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"

On 9/1/01 1:07 PM, Karl F. Larsen at k5di@zianet.com wrote:

>Hi Alan, the pictures on the web page sure show the toroid as being red
>which is an indication of a powdered iron device. I know for a fact that
>powdered iron cores make very poor baluns, that is, the balun doesn't
>display a balanced side. It should also be high loss.

Carl, didn't we just discuss this at length?

There's absolutely NO reason that a powdered iron core can't make a great
balun, if properly designed.

I suggest to go to <<http://www.amidoncorp.com/>>, request a catalog, and
study the technical details of both powdered iron and ferrite cores.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net

Quote: "Not within a thousand years will man ever fly!"

-- Wilbur Wright, 1901

Date: Thu, 6 Sep 2001 08:44:53 -0400

From: Bill Coleman <aa4lr@arrl.net>

To: <k5di@zianet.com>,

"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [106551] Re: ZM-2 toroid test
Message-ID: <20010906124553.DJGB5863.imf10bis.bellsouth.net@[192.168.0.20]>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

On 9/2/01 3:02 PM, Karl F. Larsen at k5di@zianet.com wrote:

>So I conclude that the powdered iron toroid will work as a
>transformer until it saturates. This occurs between 5 and 50 watts at 10
>MHz for a large 1 1/2 inch toroid.

I don't believe your "test" was a valid indicator of suitability for balun use. You have an inductor in series with a 50 ohm load. It makes sense that the inductor, if it has a reactance of more than 50 ohms, will be dissipating the majority of the power involved. A current balun is design to pass differential currents and inhibit common-mode currents.

Regarding core saturation. If you look at the ACTUAL MANUFACTURERS SPECIFICATIONS, you'd find that ferrite materials can withstand MUCH LOWER peak magnetic flux densities than powdered iron.

Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
Quote: "Not within a thousand years will man ever fly!"
 -- Wilbur Wright, 1901

Date: Thu, 06 Sep 2001 05:50:17 -0700
From: Beth Gardner / Dan Maguire <bethdan@pacbell.net>
To: qrp-1@Lehigh.EDU
Subject: [106552] "Seeing" what a 4:1 balun does
Message-ID: <000701c136d2\$7bb9f0e0\$b49daa40@bethdan>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

I've enjoyed following the discussion about the pros and cons of balun types and balun uses. One question is whether it is "better" to use a 4:1 balun or a 1:1 balun to connect a balanced feedline to the output side of an unbalanced tuner, and one typical scenario where this might be done is when using a non-resonant multi-band antenna. To help me "see" what was going on I used EZNEC to model a 102 foot wire at a height of 50 feet over real ground. I ran a frequency sweep from 3.5 to 30 MHz in 0.25 MHz steps to get

the antenna feedpoint impedance numbers. Then I transferred the results to XLZIZL so I could model various feed systems between the tuner and the antenna. It can be argued that a tuner might be most efficient and/or have fewer problems (like high voltage arcing) when the load *at its output* represents a fairly low SWR value. I wanted to see what the load on the tuner would be under different circumstances.

First I tried 50 feet of 450 ohm ladder line. Here's a plot of what the SWR (50 ohm reference) looks like at the input end of the feedline. (Note that the SWR scale is on the right-hand side of the plot. The left-hand scale is not used in this case. Also, you may want to open this and the other links below in a separate browser window so you can easily tab back and forth between the various plots.)

SWR with 50 ft of ladder line: <http://www.qsl.net/ac6la/why41a.gif>
The above plot shows the SWR that the tuner would have to "handle," assuming that some sort of 1:1 balun (not modeled) was used merely to convert balanced to unbalanced without any impedance transform.

Then I added a 4:1 balun at the input end of the feedline, between the feedline and the tuner.

SWR with 4:1 balun: <http://www.qsl.net/ac6la/why41b.gif>
Now the SWR at the tuner output is generally lower. (The assumption was made here that the balun did a perfect 4:1 impedance transform at all frequencies. This may not be a good assumption, depending on the construction of the balun and the frequency. Frank Witt has a good article in the Antenna Compendium Vol 5 discussing this.)

Finally I changed the feedline length from 50 feet to 100 feet. I modeled the "feedline only" again, then added a 4:1 balun between the line and the tuner. For this case I combined the plots. The square markers are for the feedline only, and the round markers are with the 4:1 balun.

SWR with 100 ft of ladder line (and 4:1 balun):
<http://www.qsl.net/ac6la/why41cd.gif>
Again it seems that the situation is "better" with the 4:1 balun in place. At only a few frequencies around 11 MHz did the use of the 4:1 balun cause the tuner to "see" a slightly higher SWR at its output side.

Of course there's more to this story than just what some pretty pictures show. It could very well be that the losses and/or other problems caused by using a 4:1 balun versus a 1:1 balun make the situation worse, not better, even if the tuner itself has to convert an impedance which is "more removed" (i.e., higher SWR) from 50+j0 ohms. I'm not drawing any conclusions here, I just enjoyed getting some numbers for at least a few scenarios and thought I'd share the results with the group.

73,
Dan AC6LA

Date: Thu, 6 Sep 2001 09:18:46 -0400
From: k8ff@juno.com
To: qrp-1@lehigh.edu
Subject: [106553] Re: Code Warrior Jr. Adjustment
Message-ID: <20010906.091852.-803133.0.k8ff@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

Hi Paul, The "VENUS" pics should be on the Vibroplex.COM website anytime now. You can view a photo of my prototype at <http://hometown.aol.com/k8ff/myhomepage/index.html>

The prototype is 24K gold plated rather than chrome like the Venus. Otherwise pretty much the same design. You can also see the press release on Page 100 of September 2001 QST.

Thanks for the interest.

Regards, Wayne K8FF

On Thu, 6 Sep 2001 08:37:35 -0400 "Paul Christensen" <paulc@mediaone.net> writes:

> Wayne,

>

> Do you have any pictures of the Venus that you can share? Thanks!

>

> -Paul, W9AC

>

> ----- Original Message -----

> From: <k8ff@juno.com>

> To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

> Sent: Thursday, September 06, 2001 8:39 AM

> Subject: Re: Code Warrior Jr. Adjustment

>

>

> > Hi Alex, Thanks for the purchase of the "Code Warrior"! I will
> try to

> > help you set it up correctly. I agree that the enclosed paperwork
> leaves

> > lots of room for improvement.

> >

> > People ask me to align and set up the keys at hamfests all the
> time. Let

> > me go through the procedure that I use.

> >
> > 1. Make sure the pivots are tight but still allow free movement.
> > 2. Loosen the contact posts and the magnetic block.
> > 3. Center the magnetic block and make sure its straight and
> parallel to
> > the sides of the base. Then re tighten the screws in the block.
> > 4. Look down from directly above the key, loosen the jam nuts on
> the
> > paddle stop screws. Screw the stop screws in or out so that when
> at rest
> > the paddle arms are parallel and look symmetrical. Now tighten
> the jam
> > nuts.
> > 5. Now align the Contact posts, making sure that the contacts
> match
> > while allowing some adjustment of the spacing. When aligned
> securely
> > tighten the contact post screws. This completes the alignment.
> Now all
> > that remains is the touchy feely adjustments. I like the tension
> > adjustment screws backed out tightly against the arms and very
> little
> > distance between the contacts. Play with the distance until you
> are
> > satisfied and lock down the jam nuts.
> >
> > Good luck and look for me on 20 CW evenings with the K1 and a
> "VENUS"
> > prototype working DX over the North Pole.
> >
> > 73, Wayne K8FF
> > NORCAL/Code Warrior/Code Mite/Venus designer
> >
> > On Wed, 5 Sep 2001 12:39:46 -0400 "Alex Turner"
> <aturner13@triad.rr.com>
> > writes:
> > > Can someone point me to a web site, other than Vibroplex, where
> there
> > > is
> > > some adjustment directions for the Code Warrior. The one I tried
> at
> > > the
> > > hamfest felt great, but the one I bought doesn't feel quite
> "right".
> > > Reading the Vibroplex supplied instructions leaves much to be
> > > desired. It
> > > doesn't have to be a web site if someone can tell me how to
> adjust

> > > it.
> > > I'm hoping a decent key will continue to spur my interest in cw.
> > >
> > > thanks
> > > Alex N4BYJ
> > >
> >
> >
> > -----
> > GET INTERNET ACCESS FROM JUNO!
> > Juno offers FREE or PREMIUM Internet access for less!
> > Join Juno today! For your FREE software, visit:
> > <http://dl.www.juno.com/get/tagj>.
>

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Juno offers FREE or PREMIUM Internet access for less!
Join Juno today! For your FREE software, visit:
<http://dl.www.juno.com/get/tagj>.

Date: Thu, 6 Sep 2001 06:28:13 -0700 (PDT)
From: Gary Slagel <gdslagel@yahoo.com>
To: QRP L <qrp-l@Lehigh.EDU>
Subject: [106554] CHEAP lightweight tripods
Message-ID: <20010906132813.68762.qmail@web11601.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Here's a thought for anyone looking for a lightweight tripod.

I was at the flea market a few weekends ago and stumbled across the bottom half of one of those little music stands all the kids use in high school band. Scooped it up for fifty cents and have been scheming how I can make it hold up an antenna. The thing is not too big and not too stable but I think it'll work to hold up a small vertical. Have been experimenting with a loaded vertical built from two small brass tubes (18" x 11/16"), a loading coil, and a 72" radio shack telescoping antenna whip.

Anyway... have been to the flea market again since then and saw several of those music stands that could be picked up for a buck or two.

73,
Gary

=====

Gary Slagel/N0SXX
Conifer, CO 80433
gdslagel@yahoo.com
Personal Website: <http://marina.fortunecity.com/sanpedro/351>

Do You Yahoo!?
Get email alerts & NEW webcam video instant messaging with Yahoo! Messenger
<http://im.yahoo.com>

Date: Thu, 06 Sep 2001 09:36:48 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: unlisted-recipients;; (no To-header on input)
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [106555] Re: CHEAP lightweight tripods
Message-ID: <3B977BF0.DC535139@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Guys,

There are lots of devices that are intended to support things that take on the shape of a tripod. Music stands and low cost light stands for photographic use are only two of these! I have a couple of cheap light stands that do a good job of holding a lightweight light, but which would never do it if they had to hold up a vertical antenna! They just don't have the strength to handle the weight moment! I would caution against using them unless you are also using some guy wires (or ropes) because you'll spend all day picking up the antenna again!

On the other hand I have several very heavy light stands and tripods that I wouldn't hesitate to use if I was looking for an easy way to support an antenna or mast. When you are out looking for something like this, please evaluate the unit with the application in mind!

Good light stands can be had from a variety of photographic sources. Even lightweight stands can be found this way. A good idea is to stop in at a LARGE local camera store and ask if they have any used light stands or camera tripods. You might be surprised at what is out there!

Date: Thu, 6 Sep 2001 09:42:11 -0400
From: "Pastor-KC1DI" <elbc@pivot.net>
To: <aa4lr@arrl.net>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [106556] Re: Tuner efficiency
Message-ID: <001601c136d9\$bc13c560\$5171ccd8@elbc>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Thanks Bill ,
finally someone who speak with comon sense on the subject.
73 dave

----- Original Message -----

From: "Bill Coleman" <aa4lr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Thursday, September 06, 2001 8:11 AM
Subject: Re: Tuner efficiency

> On 9/3/01 12:26 PM, Karl F. Larsen at k5di@zianet.com wrote:
>
> >Until you consider Q of the tuner elements it's hard to see how
> >there can be loss in a good L-C or C-L-C tuner. But after reading the
> >sections of the ARRL Handbook dealing with Q you learn (or re-learn) that
> >there are hidden resistances in the inductor that at HF frequencies cause
> >most of the loss. Capacitors have this hidden resistance too but they are
> >so small at HF frequencies you can ignore the very small effect.
>
> Tuner losses are usually inconsequential.
>
> If tuner losses were significant, then QRO operators would have
> considerable heat to disappate inside the tuner. A 1500 watt signal
> passing through a tuner with a 1 dB loss would have to disappate 150
> watts inside the tuner. If you've ever touched at 150 watt light bulb,
> you know that's a lot of heat.
>
> Feedline losses usually far outstrip tuner losses, even with open wire.
>
>
>
>
> Bill Coleman, AA4LR, PP-ASEL Mail: aa4lr@arrl.net
> Quote: "Not within a thousand years will man ever fly!"

> -- Wilbur Wright, 1901
>
>
>

Date: Thu, 6 Sep 2001 09:45:04 -0400
From: "Mike Yetsko" <myetsko@insydesw.com>
To: <gdslagel@yahoo.com>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [106557] Re: CHEAP lightweight tripods
Message-ID: <001701c136da\$252a8ac0\$6b01a8c0@INSYDENT>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hmm....

You know, I wonder how 'conductive' those space blankets are? Could you capacitively couple t one of those? Lay it on the ground, then set a music stand on it with insulating feet. Then couple to the stand itself and try to load it up....

Mike

----- Original Message -----
From: Gary Slagel <gdslagel@yahoo.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Thursday, September 06, 2001 9:28 AM
Subject: CHEAP lightweight tripods

> Here's a thought for anyone looking for a lightweight
> tripod.
>
> I was at the flea market a few weekends ago and
> stumbled across the bottom half of one of those little
> music stands all the kids use in high school band.
> Scooped it up for fifty cents and have been scheming
> how I can make it hold up an antenna. The thing is
> not too big and not too stable but I think it'll work
> to hold up a small vertical. Have been experimenting
> with a loaded vertical built from two small brass
> tubes (18" x 11/16"), a loading coil, and a 72"
> radio shack telescoping antenna whip.

>
> Anyway... have been to the flea market again since
> then and saw several of those music stands that could
> be picked up for a buck or two.
>
> 73,
> Gary
>
> =====
> Gary Slagel/N0SXX
> Conifer, CO 80433
> gds slagel@yahoo.com
> Personal Website: <http://marina.fortunecity.com/sanpedro/351>
>
> -----
> Do You Yahoo!?
> Get email alerts & NEW webcam video instant messaging with Yahoo!
Messenger
> <http://im.yahoo.com>
>

Date: Thu, 06 Sep 2001 09:59:59 -0400
From: "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
To: qrp-l@lehigh.edu
Subject: [106558] VHF Contest/817/Neat Antennas/Major Fun!
Message-ID: <3337987308.999770399@oes-madams.facilities.buffalo.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Disposition: inline

Gang,

I have a new FT817 and I know lots of you do to! I'd also bet that lots of you are know that the ARRL VHF contest is this weekend but are thinking that you won't get on the air with that 817 due to:

- a) no antenna, and
- b) I don't have enough power.

Well, YOU ARE WRONG!!

Last night I built a 4-el Yagi for 144 in about 20 minutes flat. Just check out this web site and you will be having a ball come this weekend.

<http://www.clarc.org/Articles/uhf.htm>

I also build a 432 model and both work great. Clamped to a HB 1" x 20' aluminum pole made out of old antennas and bungeed to my daughters swingset, I worked guys 40-50 miles out on 2M without even trying! (Yes, I was using the 817 at 5W.)

So, check out the rules at ARRL, make a couple of nearly free beams, find a 10-20' pole of some variety and get on the air Saturday! The contest starts at 1800UTC and runs until Sunday at 0100UTC.

<http://www.arrl.org/contests/announcements/rules-09vhf.html>

CUL es 72,
Mark K2QO VHF+ QRP-portable on-the-cheap

Mark S. Adams, P.E.
University at Buffalo
Occupational and Environmental Safety
220 Winspear Avenue
Buffalo, NY 14215-1034
Tel: 716.829.3301 Fax: 716.829.2704
Pager: 716.774.2260

Date: Thu, 6 Sep 2001 08:02:44 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: Glenn Butzlaff <gbutzlaff@wi.rr.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [106559] Re: FOX: Winter Foxhunt?
Message-ID: <Pine.LNX.4.33.0109060802290.11709-100000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I think it usually begins near the end of October Glenn...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
K2#2032 A-1 Operator Club - 10/10# 944 - SOC #11 & #12 - Whiner#10 -
QRP Borg#1
"QRP! How sweet it is!" oo#148 "I am da man wit "DAH" paddle!"

On Thu, 6 Sep 2001, Glenn Butzlaff wrote:

> Just curious; when does the winter foxhunt start? I didn't see a schedule on the official site. Just wondering how much time I have

> to get a decent 40m antenna up!
>
> Glenn Butzlaff, WE9K
> Cudahy, WI
>

Date: Thu, 6 Sep 2001 15:46:10 +0100
From: "Ronald A Pfeiffer" <Ronald_A_Pfeiffer@raytheon.com>
To: qrp-l@Lehigh.EDU
Subject: [106560] Vibroplex new Code Mite
Message-ID: <0F118116AE.2D856765-0N85256ABF.004758B6@and.us.ray.com>
MIME-Version: 1.0
Content-type: text/plain; charset=us-ascii

For those "straight-key" guys, I just received my Vibroplex Code Mite straight key serial #86 in yesterdays mail and I wanted to share my first impressions with you.

Well the key has a shiny plastic base that would appear to be flimsy but in fact it is very stable when in use. The Vibroplex name and serial number are laser engraved into the plastic base. Wonder if they would engrave your call sign?

I would have liked a sub-minature jack to plug in the key cord; however Wayne (K8FF) explained how the use of solder lugs is more versatile.

A great advantage to me is the key itself is chrome and therefore is no need to polish it to keep it looking good like brass.

The little key has a great "feel" to me and I will be taking my little "Code Mite" into the field for portable use, I may even use it at home too!

Ron - N1ZSW

PS - If my key is serial #86 how about the other 85 give us their opinion.

Date: Thu, 06 Sep 2001 10:59:28 -0400
From: "Tim A. King Jr." <iflyos@hotmail.com>
To: qrp-l@Lehigh.EDU
Subject: [106561] Small RF Amp & other questions (LONG)

Message-ID: <F64kg2SkaF4kwNhRJCA00009984@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Guys,

Thanks for all the help and info in regards to the 706 schematic...I think we have the info we need.

Now, on to another question: I know somewhere I have seen a schematic for a small (4-5 watt, maybe less, I cannot recall) rf power amp that was fairly straight forward to use with a Pixie or similar. However, I lost all of my bookmarks during a harddrive crash this past weekend, and I cannot seem to find the page anywhere. If anyone could point me in the right direction, I would be very appreciative. I know, most of you told me that the Pixie wasn't the best rig to start qrp with, but I happened to have most of the parts onhand, and I still have the good ole TS-930 that I can throttle back to a full qrp gallon if the Pixie just can't do it. I figured the amp would be a nice add-on, and I have another Altoids tin just begging for a project.

(Looks like my portable qrp station will be a complete Altoids line..I did the power supply in one, the rig in another.) Here is another question: could one use a homebrew keyer with the Pixie, or would I be better off with a straight key?

Wish me luck, I am going to try for my general upgrade this Saturday. I hope I can get through it ok.

72,

Tim A. King, Jr.
KG4MQD
Safety Officer, Hobby Park R/C Aircraft Club
Winston Salem, NC
AMA# 578668

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Thu, 6 Sep 2001 09:58:40 -0700
From: "Dan Evans" <n9rla@yahoo.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [106562] Re: VHF Contest/817/Neat Antennas/Major Fun!
Message-ID: <01df01c136f5\$2ef6d3e0\$0101a8c0@danevans>
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

And if you would like help finding other VHF+ Ops in your area, try the plans lists on the Rover Resource Page:
<http://www.qsl.net/n9rla>

Good luck to everyone in the contest!

73
Dan

Dan Evans N9RLA
Scottsburg, IN 47170
{EM78}
IN-Ham list administrator
QRP-1 #1269
1/2 of the N9RLA /R no budget Rover Team
Check out the Rover Resource Page at:
<http://www.qsl.net/n9rla>

----- Original Message -----

From: "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Thursday, September 06, 2001 6:59 AM
Subject: VHF Contest/817/Neat Antennas/Major Fun!

> Gang,
>
> I have a new FT817 and I know lots of you do to! I'd also bet that lots of
> you are know that the ARRL VHF contest is this weekend but are thinking
> that you won't get on the air with that 817 due to:
>
> a) no antenna, and
> b) I don't have enough power.
>
> Well, YOU ARE WRONG!!
>
> Last night I built a 4-el Yagi for 144 in about 20 minutes flat. Just
check
> out this web site and you will be having a ball come this weekend.
>
> <http://www.clarc.org/Articles/uhf.htm>
>
> I also build a 432 model and both work great. Clamped to a HB 1" x 20'

> aluminum pole made out of old antennas and bungeed to my daughters
> swingset, I worked guys 40-50 miles out on 2M without even trying! (Yes, I
> was using the 817 at 5W.)
>
> So, check out the rules at ARRL, make a couple of nearly free beams, find
a
> 10-20' pole of some variety and get on the air Saturday! The contest
starts
> at 1800UTC and runs until Sunday at 0100UTC.
>
> <http://www.arrl.org/contests/announcements/rules-09vhf.html>
>
> CUL es 72,
> Mark K2QO VHF+ QRP-portable on-the-cheap
>
>
>
> Mark S. Adams, P.E.
> University at Buffalo
> Occupational and Environmental Safety
> 220 Winspear Avenue
> Buffalo, NY 14215-1034
> Tel: 716.829.3301 Fax: 716.829.2704
> Pager: 716.774.2260

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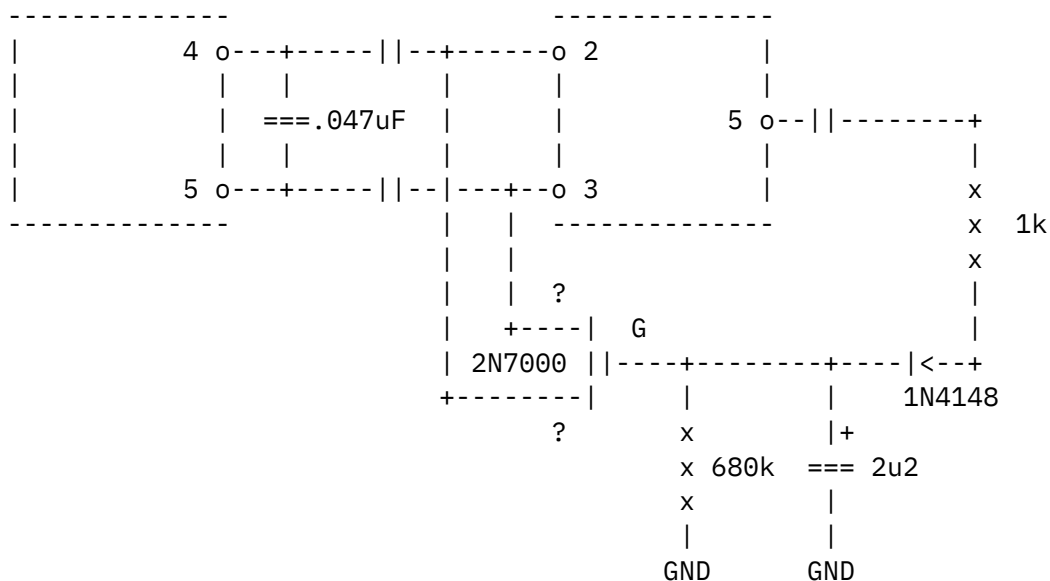
Date: Thu, 06 Sep 2001 16:27:52 +0200
From: DK3RED@t-online.de (Ingo, DK3RED)
To: QRP-L <qrp-l@lehigh.edu>
Subject: [106563] MFG CUB
Message-ID: <3B9787E8.9DEA0A27@t-online.de>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello,

I am looking for an info about a special detail of the MFG CUB. The AGC
between the NE602 and the LM386 uses a FET 2N7000.

ProdDet NE602

LM386



On witch pin is the drain and who the source (the gate is clear hi)?

--

72/73 de Ingo, DK3RED (Don't forget: the fun is the power !)

eMail: dk3red@qsl.net - homepage: www.qsl.net/dk3red

 Date: Thu, 6 Sep 2001 11:22:10 -0400
 From: "w8diz" <w8diz@fpqrp.com>
 To: <DK3RED@t-online.de>,
 "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
 Subject: [106564] Re: MFG CUB
 Message-ID: <005d01c136e7\$b354d0f0\$0200000a@hunkar.com>
 MIME-Version: 1.0
 Content-Type: text/plain;
 charset="iso-8859-1"
 Content-Transfer-Encoding: 7bit

Hello Ingo,

Look at the 2N7000 the same way you would a 2N3904...

The Gate matches with the base (easy)

The Source matches with the Emitter and

the Drain matches with the Collector.

in other words,

with the flat side toward you and the pins pointing down,

>
> On witch pin is the drain and who the source (the gate is clear hi)?
>
> --
> 72/73 de Ingo, DK3RED (Don't forget: the fun is the power !)
>
> eMail: dk3red@qsl.net - homepage: www.qsl.net/dk3red
>
>
>

Date: Thu, 06 Sep 2001 17:30:34 +0200
From: DK3RED@t-online.de (Ingo, DK3RED)
To: QRP-L <qrp-l@lehigh.edu>
Subject: [106566] Re: MFG CUB
Message-ID: <3B97969A.6AAB2809@t-online.de>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello Diz,

this is not what I mean. I am looking for an info about the mailed schematic and the right pins there (not on the case hi). Please see at the "?" inside the schematic.

--
72/73 de Ingo, DK3RED (Don't forget: the fun is the power !)

eMail: dk3red@qsl.net - homepage: www.qsl.net/dk3red

w8diz:

>
> Hello Ingo,
>
> Look at the 2N7000 the same way you would a 2N3904...
> The Gate matches with the base (easy)
> The Source matches with the Emitter and
> the Drain matches with the Collector.
> in other words,
> with the flat side toward you and the pins pointing down,
> the Source is on your left side.
>
> ditdit
>

> 72 & 'oo' - Diz, W8DIZ

Date: Thu, 06 Sep 2001 17:35:31 +0200
From: DK3RED@t-online.de (Ingo, DK3RED)
To: QRP-L <qrp-l@lehigh.edu>
Subject: [106567] Re: MFG CUB
Message-ID: <3B9797C3.C9D4CDE9@t-online.de>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello Diz,

I think it also, but I want to receive the right info.

--
72/73 de Ingo, DK3RED (Don't forget: the fun is the power !)

eMail: dk3red@qsl.net - homepage: www.qsl.net/dk3red

w8diz:

>
> On my email 2 minutes ago, I forgot to mention that in this circuit,
> the Drain and Source are interchangeable (i think)
>
> -Diz, W8DIZ

Date: Thu, 6 Sep 2001 10:38:37 -0500
From: "Mike Branca" <w3irz@att.net>
To: <qrp-l@Lehigh.EDU>
Cc: "Mike Branca" <w3irz@att.net>
Subject: [106568] Re: Baluns a new perspective
Message-ID: <01f701c136e9\$ff994840\$e90c4d0c@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I've been enjoying all the discussion of baluns and have commented a few times too. But the discussion seems to omit the obvious: why bother with any core material. Air wound baluns are cheap, efficient, simple and fun to make. And with no core losses, minimal wire losses and choice of ratio they should be more common.

My "Broomstick" baluns are simple to construct. Simply bi-filar wind 10 turns of 12 or 14 gauge insulated wire (stripped from Romex) around a broomstick; remove the broomstick and wire in series. This yields a 4:1 balun and to get a 1:1 balun simply add 10 more turns either inside or outside of the 4:1 balun. I have been using these baluns for more than 20 years on 80 thru 10 meters. Yes, you put these baluns on the antenna side of your tuner.

As for current Vs voltage baluns I don't think it matters on an open wire fed multiband antenna nor do I think it matters to the ham you are talking to 3000 miles away. Its like asking which is bigger 12 or a dozen. And yes I have read all the text referred to in the discussion.

For the new ham following this discussion remember that 98% of this discussion is opinion (including mine) and probably doesn't matter. So here are your choices:

- a. enter a lot of complex discussions
- b. experiment a lot and learn
- c. get on the air and operate

I'll be willing to bet which one you find humorous; which one you find educational and which one you find fun.

Mike Branca W3IRZ in Conyers Georgia

Date: Thu, 6 Sep 2001 12:11:27 -0400
From: "John L. \"Jake\" Carter" <jakecart@ix.netcom.com>
To: <iflyos@hotmail.com>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [106569] RE: Small RF Amp & other questions (LONG)
Message-ID: <GCECIJFJPOHMCKACOA0BMEAGCNAA.jakecart@ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Tim -- KG4MQD:

You might try the "mini boots" amp on the Nor Cal web site. The URL is:

<http://www.fix.net/jparker/norcal/minibootsbuiltin/minibootsbuiltin.htm>

Your Pixie's output may be a bit low to drive the mini boots. As I recall my Pixie puts out about 100 milliwatts and the mini boots calls for about 1w. I'd probably try it and see what happens.

An amp that will work with less than 100 milliwatts of drive is the NJQRP Fireball 40 amp. The info is at:

<http://www.njqrp.org/fireball40/fb40amp.pdf>

I boosted the output of my Tuna Tin by adding an amp of 6 parallel 2N2222s (the plastic ones). I added a little output filter and get about 1.25 watts max. I hold the output down to 800 milliwatts -- worked the west coast with it so I figure its working. I had to reduce the output of my Tuna Tin to about 50 milliwatts to prevent burning up those plastic 2222s -- next time I'll use the metal ones :-).

Good Luck,

Jake -- N4UY
Vienna, VA
(Wash DC suburbs)

-----Original Message-----

From: owner-qrp-l@Lehigh.EDU [mailto:owner-qrp-l@Lehigh.EDU] On Behalf Of Tim A. King Jr.
Sent: Thursday, September 06, 2001 10:59 AM
To: Low Power Amateur Radio Discussion
Subject: Small RF Amp & other questions (LONG)

Guys,

Thanks for all the help and info in regards to the 706 schematic...I think we have the info we need.

Now, on to another question: I know somewhere I have seen a schematic for a small (4-5 watt, maybe less, I cannot recall) rf power amp that was fairly straight forward to use with a Pixie or similar. However, I lost all of my bookmarks during a harddrive crash this past weekend, and I cannot seem to find the page anywhere. If anyone could point me in the right direction, I would be very appreciative. I know, most of you told me that the Pixie wasn't the best rig to start qrp with, but I happened to have most of the parts onhand, and I still have the good ole TS-930 that I can throttle back to a full qrp gallon if the Pixie just can't do it. I figured the amp would be a nice add-on, and I have another Altoids tin just begging for a project.

(Looks like my portable qrp station will be a complete Altoids line..I did the power supply in one, the rig in another.) Here is another question: could one use a homebrew keyer with the Pixie, or would I be better off with a straight key?

Wish me luck, I am going to try for my general upgrade this Saturday. I

hope I can get through it ok.

72,

Tim A. King, Jr.
KG4MQD
Safety Officer, Hobby Park R/C Aircraft Club
Winston Salem, NC
AMA# 578668

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Thu, 06 Sep 2001 09:43:27 -0700
From: Russ Carpenter <russ@natworld.com>
To: QRP-L List <qrp-l@lehigh.edu>
Subject: [106570] Results of THE SEPTEMBER SPARTAN SPRINT
Message-ID: <B7BCF5BF.933E%russ@natworld.com>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

The September Spartan Sprint sizzled. 20 meters was the place to be, with K6STI running up 80 contacts on that band alone! The winner of the Tubby division, WA9TZE, broke the magic 100 mark. It was a pleasure to hear W3TS again. Mike handily won the Skinny division, with his clever shrink wrapped DSW-20, separate control head, and three tiny lithium batteries.

Each contact received one point. If you didn't tell us the weight of your station, or if your station weighed more than the Voice of America, we assigned a weight of 30 pounds.

The soapbox was published separately in the September issue of The ARS Sojourner, which went live today. Don't miss it! <http://www.natworld.com/ars>

THE SKINNY DIVISION (results sorted in the order of points per pound)

Call	Name	80m	40m	20m	15m	10m	Total Points	Wt.	Points/ Pound
W3TS	Mike	0	0	33	0	0	33	.31	106.45
W0CH	David	0	0	34	0	0	34	1.12	30.36
AA1MY	Seab	0	0	32	0	0	32	1.4	22.86
N7CEE	Bruce	0	0	35	0	0	35	2.2	15.91

WB3AAL	Ron	0	0	21	0	0	21	1.4	15.00
K4FDK	John	0	15	0	0	0	15	1.2	12.50
WY1W	Butch	0	16	30	0	0	46	3.7	12.43
AE6N	Jim	0	0	31	0	0	31	2.5	12.40
W6AGS	Arthur	0	0	12	0	0	12	1	12.00
K4GT	Jim	0	0	20	0	0	20	2	10.00
K4MF	Gary	0	6	30	2	0	38	4.35	8.74
N0RC	Rod	0	0	56	0	0	56	7	8.00
W0UFO	Mert	0	0	54	0	0	54	8	6.75
K7PX	Steve	0	0	22	0	0	22	3.5	6.29
AF4PP	Chuck	0	0	12	0	0	12	2	6.00
AD4J	Jim	0	10	35	0	0	45	9	5.00
N4EJG	Ed	0	1	14	0	0	15	3.5	4.29
KF6QKI	Rich	0	7	16	0	0	23	5.8	3.97
KH6B	Dean	0	0	13	3	0	16	4.5	3.56
KB9LCK	Chris	0	0	14	0	0	14	4	3.50
K4AVX	John	0	1	16	0	0	17	5	3.40
WA9TZE	Jim	7	47	37	6	4	101	30	3.37
NQ7X	Floyd	0	0	19	0	0	19	6	3.17
K6STI	Brian	0	13	80	0	0	93	30	3.10
KW4JS	John	0	9	14	0	0	23	8	2.88
K5HWT	Morg	0	1	4	0	0	5	1.8	2.78
AA7QU	Russ	0	0	77	0	0	77	30	2.57
KQ6NO	Rick	0	4	0	0	0	4	1.6	2.50
K04PY	Brent	0	9	60	0	0	69	30	2.30
W2BVH	Lenny	3	4	9	0	0	16	7	2.29
W1PID	Jim	0	4	3	0	0	7	3.25	2.15
KK6MC/5	Jim	0	0	49	7	0	56	30	1.87
K07X	Alan	2	20	26	3	1	52	30	1.73
NK0E	David	0	0	51	0	0	51	30	1.70
NM5M	Eric	0	1	44	5	0	50	30	1.67
KA8LLE	Ben	1	1	17	0	0	19	12	1.58
VE1CHS	Peter	0	0	10	9	0	19	14.25	1.33
WD6FDD	Rich	0	0	2	0	0	2	1.5	1.33
KG8GW	Ron	0	22	12	0	0	34	30	1.13
WD9F	Woody	0	2	5	0	0	7	7	1.00
W3ERU	Wes	0	12	17	0	0	29	30	0.97
N7AC	Tom	0	5	22	1	0	28	30	0.93
W9FNB	Gary	0	4	7	1	0	12	14	0.86
N1EU	Barry	0	8	17	0	0	25	30	0.83
AA7EQ	Bob	0	0	22	0	0	22	30	0.73
W3TW	Tom	0	9	12	0	0	21	30	0.70
K6RPN	Doug	0	7	14	0	0	21	30	0.70
W4STX	Bill	0	4	2	0	0	6	9.6	0.63
W4NJK	Charlie	0	1	12	4	1	18	30	0.60
W7WIK	Marco	0	17	0	0	0	17	30	0.57
W7PUA	Bob	0	6	11	0	0	17	30	0.57
KG4FXG	Bill	0	2	4	0	0	6	10.66	0.56

VE6QSL	John	0	0	15	0	0	15	30	0.50
K4BX	Bill	0	4	11	0	0	15	30	0.50
VE6AAN	Pat	0	0	14	0	0	14	30	0.47
AB0CD	Dick	0	2	7	0	0	9	20	0.45
K04WX	Mike	0	4	8	0	0	12	30	0.40
K5QLF	Fred	0	0	1	0	0	1	4	0.25
WD0DDU	Layne	0	0	4	0	0	4	30	0.13

THE TUBBY DIVISION (results sorted in the order of points)

Call	Name	80m	40m	20m	15m	10m	Total Points
WA9TZE	Jim	7	47	37	6	4	101
K6STI	Brian	0	13	80	0	0	93
AA7QU	Russ	0	0	77	0	0	77
K04PY	Brent	0	9	60	0	0	69
N0RC	Rod	0	0	56	0	0	56
KK6MC/5	Jim	0	0	49	7	0	56
W0UFO	Mert	0	0	54	0	0	54
K07X	Alan	2	20	26	3	1	52
NK0E	David	0	0	51	0	0	51
NM5M	Eric	0	1	44	5	0	50
WY1W	Butch	0	16	30	0	0	46
AD4J	Jim	0	10	35	0	0	45
K4MF	Gary	0	6	30	2	0	38
N7CEE	Bruce	0	0	35	0	0	35
KG8GW	Ron	0	22	12	0	0	34
W0CH	David	0	0	34	0	0	34
W3TS	Mike	0	0	33	0	0	33
AA1MY	Seab	0	0	32	0	0	32
AE6N	Jim	0	0	31	0	0	31
W3ERU	Wes	0	12	17	0	0	29
N7AC	Tom	0	5	22	1	0	28
N1EU	Barry	0	8	17	0	0	25
KF6QKI	Rich	0	7	16	0	0	23
KW4JS	John	0	9	14	0	0	23
K7PX	Steve	0	0	22	0	0	22
AA7EQ	Bob	0	0	22	0	0	22
W3TW	Tom	0	9	12	0	0	21
K6RPN	Doug	0	7	14	0	0	21
WB3AAL	Ron	0	0	21	0	0	21
K4GT	Jim	0	0	20	0	0	20
VE1CHS	Peter	0	0	10	9	0	19
NQ7X	Floyd	0	0	19	0	0	19
KA8LLE	Ben	1	1	17	0	0	19
W4NJK	Charlie	0	1	12	4	1	18
W7WIK	Marco	0	17	0	0	0	17

W7PUA	Bob	0	6	11	0	0	17
K4AVX	John	0	1	16	0	0	17
W2BVH	Lenny	3	4	9	0	0	16
KH6B	Dean	0	0	13	3	0	16
VE6QSL	John	0	0	15	0	0	15
N4EJG	Ed	0	1	14	0	0	15
K4BX	Bill	0	4	11	0	0	15
K4FDK	John	0	15	0	0	0	15
VE6AAN	Pat	0	0	14	0	0	14
KB9LCK	Chris	0	0	14	0	0	14
K04WX	Mike	0	4	8	0	0	12
W9FNB	Gary	0	4	7	1	0	12
AF4PP	Chuck	0	0	12	0	0	12
W6AGS	Arthur	0	0	12	0	0	12
AB0CD	Dick	0	2	7	0	0	9
W1PID	Jim	0	4	3	0	0	7
WD9F	Woody	0	2	5	0	0	7
W4STX	Bill	0	4	2	0	0	6
KG4FXG	Bill	0	2	4	0	0	6
K5HWT	Morg	0	1	4	0	0	5
WD0DDU	Layne	0	0	4	0	0	4
KQ6NO	Rick	0	4	0	0	0	4
WD6FDD	Rich	0	0	2	0	0	2
K5QLF	Fred	0	0	1	0	0	1

Thanks for supporting The Adventure Radio Society!

Russ Carpenter, AA7QU
Contest Manager

Date: Thu, 6 Sep 2001 13:11:17 -0400
From: "John Dorson" <JDORSON@worldshare.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [106571] motor control
Message-ID: <001301c136f6\$f18a1e20\$4e6e5a41@john>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

can anyone tell me where I can find a stepper motor and control. I wan to add this to my loop antenna.

thanks.
John K2JHU...
jdorson@worldshare.net

Date: Thu, 06 Sep 2001 13:19:59 -0400
From: adamvaz@palm.net (Adam Vazquez)
To: JDORSON@worldshare.net, qrp-l@Lehigh.EDU
Subject: [106572] Re: motor control
Message-ID: <GJ945B00.3MP@mo110uhou.palm.net>
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

1
JDORSON@worldshare.net wrote on 9/6/01 1:11 pm:

>can anyone tell me where I
>can find a stepper motor and
>control. I wan to
>add this to my loop antenna.
>
>thanks.
>John K2JHU...

Kf2AT used the stepper motor out of a floppy drive (5 1/4)for his loop antenna. If you keep the control board, you can control speed , direction, and rate.

Date: Thu, 06 Sep 2001 19:20:38 +0200
From: DK3RED@t-online.de (Ingo, DK3RED)
To: QRP-L <qrp-l@lehigh.edu>
Subject: [106573] Re: motor control
Message-ID: <3B97B066.A2B78AB7@t-online.de>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello John,

> can anyone tell me where I can find a stepper motor and control. I wan to
> add this to my loop antenna.

If you have access to an old computer printer looking inside this "rig".

--

72/73 de Ingo, DK3RED (Don't forget: the fun is the power !)

eMail: dk3red@qsl.net - homepage: www.qsl.net/dk3red

Date: Thu, 06 Sep 2001 17:32:19 +0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: JDORSON@worldshare.net, qrp-1@Lehigh.EDU
Subject: [106574] Re: motor control
Message-ID: <F172YkNUTv17PDqqgNj000070d8@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>From: "John Dorson" <JDORSON@worldshare.net>
>Reply-To: JDORSON@worldshare.net
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Subject: motor control
>Date: Thu, 6 Sep 2001 13:11:17 -0400

>

>can anyone tell me where I can find a stepper motor and control. I wan to
>add this to my loop antenna.

You'll find them in dead floppy disk drives. 5 1/4" ones would be best, because of the size. The old 8" drives had quite beefy ones, they would be ideal. You'll have to make your own controller from an AVR, PIC or whatever, and build the driver circuit. It's quite trivial. You might be able to get the driver chip out of the drive PCB, but you will have to figure out an interface for it.

Leon

--

Leon Heller, G1HSM Tel: +44 1327 359058 Email:leon_heller@hotmail.com
My web page: http://www.geocities.com/leon_heller
My low-cost Altera Flex design kit: <http://www.leonheller.com>

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Thu, 06 Sep 2001 13:46:26 -0400
From: Ken Newman <N2CQ@citnet.com>
To: epaqrp-1@lehigh.edu, QRP-L@lehigh.edu, njqrp@njqrp.org,
n9avg@amsat.org
Subject: [106575] [CONTEST] QRP Contest Calendar - Sep 8-30
Message-ID: <3.0.6.32.20010906134626.007e1520@mail.citnet.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

~~~~~  
QRP CONTEST CALENDAR

September 8-30, 2001

~~~~~  
Worked All Europe DX Contest (SSB)

Sep 08 - 0000z to Sep 09 - 2400z

Rules: <http://www.sk3bg.se/contest/waedxc.htm>

~~~~~  
ARRL September VHF QSO Party (All)

Sep 08 - 1800z to Sep 10 - 0300z

Rules: <http://www.arrl.org/contests/announcements/rules-09vhf.html>

~~~~~  
Second Class Operator Club Marathon (CW) *** QRP Contest ***

Sep 08 - 1800z to 2400z

Rules: <http://diz.faithweb.com/soc/>

~~~~~  
NA Sprint (CW)

Sep 09 - 0000z to 0400z

Rules:



<http://www.ncjweb.com/index.php3?leftcol=contestmenu&rightcol=sprintrules1>

~~~~~  
End of Summer PSK-31 Sprint *** QRP Contest ***

Sep 09 - 2000z to 2400z

Rules: <http://personal.palouse.net/rfoltz/arci/psk31.htm>

~~~~~  
Washington State Salmon Run (CW/SSB) ... QRP Category

Sep 15 - 1600z to Sep 16 - 0700z

Sep 16 - 1600z to Sep 16 - 2400z

Rules: <http://www.wwdxc.org/salmonrun/rules.htm>

~~~~~  
Scandinavian Activity Contest (CW) ... QRP Category

Sep 15 - 1200z to Sep 16 - 1200z

Rules: <http://www.sk3bg.se/contest/sacnsc.htm>

~~~~~  
QRP Afield (CW/SSB/Digital) \*\*\* QRP Contest \*\*\*

Sep 15 - 1700z to Sep 16 - 1700z (Any 8 hours)

Rules: <http://www.qsl.net/wq1rp>

~~~~~  
NA Sprint (SSB)

Sep 16 - 0000z to 0400z

Rules:

<http://www.ncjweb.com/index.php3?leftcol=contestmenu&rightcol=sprintrules1>

~~~~~  
Tennessee QSO Party

Sep 16 - 1800z to Sep 17 - 0100z

Rules: <http://www.k4ro.net/tcg/tqp/tqp99fin.html#rules>

~~~~~  
Scandinavian Activity Contest (SSB) ... QRP Category

Sep 22 - 1200z to Sep 23 - 1200z

Rules: <http://www.sk3bg.se/contest/sacnsc.htm>

~~~~~  
Fall QRP Homebrewer Sprint (CW/PSK31) \*\*\*QRP CONTEST\*\*\*

Sep 24 - 0000z to 0400z (Sunday evening in US/Canada)

Rules: <http://www.njqrp.org/data/qrphomebrewersprint.html>

~~~~~  
CQWW RTTY DX Contest ... QRP QRM

Sep 29 - 0000z to Sep 30 - 2400z

Rules: <http://www.rttyjournal.com/rules/cqww.html>

~~~~~  
QRP ARCI Fall QSO Party (CW) \*\*\* QRP Contest \*\*\*

Sep 29 - 1200z to Sep 30 - 2400z

Rules: <http://personal.palouse.net/rfoltz/arci/fall.htm>

~~~~~  
Texas QSO Party (All) ... QRP Category

Sep 29 - 1400z to Sep 30 - 0200z

Sep 30 - 1400z to Sep 30 - 2000z

Rules: <http://www.k5vuu.com/tqp/>

~~~~~

Louisiana QSO Party (CW/PH) ... QRP Category

Sep 29 - 1400z to Sep 30 - 0200z

Sep 30 - 1400z to Sep 30 - 2000z

Rules: <http://www.tchams.org/users/contest/laqp/>

~~~~~

Alabama Heart of Dixie QSO Party (CW/SSB) ... QRP Category

Sept 29 - 1800z to 2400z

Rules: <http://web.dbtech.net/~dxcc/rules1.htm>

~~~~~

Thanks to LA9HW, SM3CER, WA7BNM, ARRL and others  
for assistance in compiling this calendar.

Anyone may use this "QRP Contest Calendar" for your website, newsletter,  
e-mail list or other media as you choose.

(Include a credit to the source of this material of course.)

72 de

Ken Newman - N2CQ

N2CQ@ARRL.NET

<http://www.NJQRP.org>

<http://www.N3EPA.org>

<http://www.qsl.net/cqrp/contests.html>

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Date: Thu, 6 Sep 2001 10:59:07 -0700

From: "Doug Hendricks" <ki6ds@dph.dpol.net>

To: <qrp-1@lehigh.edu>

Subject: [106576] Riverside QRP Forum this weekend

Message-ID: <00ec01c136fd\$a2984b00\$4a0b0d0a@dph.dpol.net>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

The hardest part about going to a qrp forum is the last day at work. Tough  
to keep you mind on what you are supposed to be doing, when you think about

all the fun you are going to have.

Guys, if you are on the fence about going to Riverside, jump off and come on out. The Lake Perris QRP Society has done an outstanding job of lining up world class speakers, and they are going to be right in your backyard. I remember 10 years ago when the only opportunity to hear speakers of this quality was to go to Dayton. That cost a bunch of money for the guys on the West Coast, and a bunch of time. You had to allow 2 days just for travel, and that is hard to do for some of us.

But now, we have all of the regional qrp forums, Atlanticon, Arkiecon, Hamcon, Iowacon, Ft. Tuthill, Huntsville, Riverside, and Pacificon. Eight opportunities to go to a major qrp event and have fun. Every one is alike, and every one is different. I remember like yesterday the first time I went to Dayton and got to meet all of my heroes, George Dobbs, Wes Hayward, Roy Lewallen, Dick Pascoe, Dave Benson. Man, all of them in one place, and all famous. Guess what I found out? Everyone of those guys is a qrper (nice guy, loves the qrp part of ham radio, and was great to talk to.) Gee, I thought famous people were somehow "special" and would be hard to hold a conversation with. I found just the opposite, they were the friendliest, most helpful people that I have ever met, and went out of their way to make me feel welcome and part of the group.

You know what guys? I have seen this repeated over and over at every single qrp forum that I have attended, and you will too. There is a list of famous people that will be at Riverside a mile long, just off the top of my head here we go: Jim Cates, Chuck Adams, Jerry Parker, Paul Maciel, Dave Fifield, Wayne Burdick, Eric Swartz, Jim Duffey, Rich Fisher, Ed Hare, Vern Wright, Bob & Bertie Hightower and I am sure that there will be a few more show up and surprise us.

The operative word this weekend is to have fun. Also, make sure that you bring a \$5 bill with you. You will need it. 72, Doug

-----  
Date: Thu, 6 Sep 2001 14:16:04 -0400  
From: "ZOOM" <kandrparker@sympatico.ca>  
To: <JDORSON@worldshare.net>,  
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [106577] Re: motor control  
Message-ID: <001801c136ff\$fe40bb20\$99a4fea9@RobParker>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

See Harry's Homebrew. He used a RC plane servo and connected it to a simple circuit for remote control of a capacitor.

Here's the link:

<http://www.geocities.com/siliconvalley/3569/>

Cheers,  
Robert  
VE3RPF

----- Original Message -----

From: John Dorson <JDORSON@worldshare.net>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Sent: Thursday, September 06, 2001 1:11 PM  
Subject: motor control

> can anyone tell me where I can find a stepper motor and control. I wan to  
> add this to my loop antenna.  
>  
> thanks.  
> John K2JHU...  
> jdorson@worldshare.net  
>  
>

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Date: Thu, 6 Sep 2001 15:17:36 -0400  
From: "Dave Benham" <dodgeboy@mindspring.com>  
To: <qrp-l@Lehigh.EDU>  
Subject: [106578] [ANT]tripod ideas  
Message-ID: <007501c13708\$976f3bc0\$82d279a5@hqa.chrysler.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Speaking of tripods, I took a tripod meant for a 35mm camera, cranked the vertical post up until it came out, leaving the three legs in tact with a 1.25" dia. hole in the middle. Then I insert a twist-locking paint pole which just happens to be the same diameter as the tripod post I took out, and mount my W3FF portable dipole on it, then extend the paint pole up to about 10 or 12 feet.

I haven't tried a vertical with this tripod -- I imagine the legs would not yield the same effect as the Outbacker type tripods because they don't fold

out. Also, I am not making an effort to ground the mount to the tripod legs.

I have used another tripod device that I picked up at a garage sale. I'm not sure what it was intended for originally. It has a small horizontal disc (about 4" dia.), collapsing legs and a vertical pole that extends (not more than 5 feet). I got an old Hustler trunk mount bracket and attached it to the disc, then I can mount my choice of vertical antenna in it. I clip a counterpoise to the horizontal disc. It works pretty well and is very portable.

Dave K8TRF

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Date: Thu, 6 Sep 2001 16:14:59 -0500  
From: "Rob Matherly" <kc0bom@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Cc: "Flying Pigs" <fpqrp-1@mpna.com>  
Subject: [106579] Ot: For you senior golf fans...  
Message-ID: <000701c13718\$ffd0c7a0\$7211a541@intern01>  
MIME-Version: 1.0  
Content-Type: text/plain;  
                charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

If there's anyone on these lists that likes senior golf, you might have to wait for this weekend's tournament. A tornado just went through Des Moines and tore up the golf course.

72/73/oo  
Rob, kc0bom

-----  
Date: Fri, 07 Sep 2001 05:26:33 +0800  
From: "Trevor Jacobs" <fxtech@earthlink.net>  
To: "John Dorson" <JDORSON@worldshare.net>,  
      "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [106580] Re: motor control - Long  
Message-ID: <20010906212634.17697.qmail@earthlink.net>  
Content-Type: text/plain; charset="iso-8859-1"  
Content-Disposition: inline  
Content-Transfer-Encoding: 7bit  
MIME-Version: 1.0

Hi John and all,

How big of a motor are you planning on driving? If you are using a size 17 motor rated at say 12 VDC you could build up a small drive circuit out of 2N2222's or similar with some logic to run it.

One chip that you could use is the Ericsson PBD 3517 (now manufactured by NJR in Japan). It will drive a stepper in unipolar (6 wire) fashion with a minimum of external components. Two signals are required to run the chip: Step and Direction. Think of step as a clock pulse, each pulse steps the motor 1 full step (or a half step if in half step mode). Direction is either high or low depending on which direction you want to turn the motor. The pulses could be generated easily with a 555 timer.

Now, keep in mind, that you have no idea of the position of the motor at turn on, so if you want to store motor positions you'll need some kind of "Homing" routine at power up. I usually run the motor to one end of travel and use some kind of sensor to know when it's there. This could be as easy as a microswitch with an arm attached to the motor (assuming 1:1 gearing or direct drive) to trigger the switch when at the home position. After the motor is homed, you simply "count" the number of steps that you move. If you don't want to store motor positions, you'll still need to know when the motor is at the end of the travel of the device (I'm assuming an air variable?) so that you don't destroy what you are driving. You could use micro switches for this also or a hard stop on each end of travel that keeps the motor from turning any further. The latter method will NOT damage the motor and is common practice.

As far as resolution goes, the most common size 17 motors are 1.8 degrees per step. If you need further resolution, you could half step the motor with the above chip to get .9 degrees per step. Higher resolution motors are available, such as .9 degree per step motors, but the torque is generally much lower for the same power rating and stack size.

For very high resolution, you could look into microstepping. I commonly use 1/128th or 1/64th microsteps per 1.8 degrees for my applications. This gets way more involved though.

One very good source of information and parts for stepper experimenting is <http://www.eio.com> . They offer a wide variety of parts and there is also a news group.

Sorry for the long winded e-mail. Hope this helps...

72/73

Trev

KG6CYN

-----Original Message-----

From: "John Dorson" <JDORSON@worldshare.net>  
Date: Thu, 6 Sep 2001 13:11:17 -0400  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: motor control

> can anyone tell me where I can find a stepper motor and control. I wan to  
> add this to my loop antenna.  
>  
> thanks.  
> John K2JHU...  
> jdorson@worldshare.net  
>  
>

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Get your free email from <http://webmail.earthlink.net>

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Date: Thu, 6 Sep 2001 18:46:07 -0400  
From: "Hare,Ed, W1RFI" <w1rfi@arrl.org>  
To: "'Jim Lowman '" <jmlowman@ix.netcom.com>,  
      "'Low Power Amateur Radio Discussion '" <qrp-1@Lehigh.EDU>  
Subject: [106581] RE: QRP Dinner at the ARRL Southwestern Division Convention  
Message-ID: <125490A005E3D3118C9C00805FC743CC023B3821@KAHLESS>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"

And Jim forgot to mention that an ARRL Antenna Book fell off a truck and I  
was right there to pick it up. :-) If Jim remembers to bring some tickets,  
I will give it away to a lucky QRPer at the dinner. :-)

See you then!

73,  
Ed Hare, W1RFI/6

-----Original Message-----

From: Jim Lowman  
To: Low Power Amateur Radio Discussion  
Sent: 9/5/2001 11:09 PM  
Subject: QRP Dinner at the ARRL Southwestern Division Convention



Last message on this topic, I promise!

Our dinner guests now number 29. I had inadvertently left Jim's (KK6MC/5) daughter, Barbara, off the list.

Also, I failed to mention a special guest, Ed Hare, W1RFI, who has generously offered to speak once on the QRP Forum and twice more on the other forums; once again on Saturday, and again on Sunday. Ed will be among the 29 QRP faithful holding court at the Friday evening dinner.

72 de Jim - AD6CW

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Date: Thu, 6 Sep 2001 18:54:41 EDT  
From: J38AL@aol.com  
To: qrp-l@lehigh.edu  
Subject: [106582] Re: motor control  
Message-ID: <11d.4485541.28c958b1@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

Ramsey Electronics sells a stepper motor driver board kit for about \$25. I have one and it works well. It needs transistors added to the output of the IC as it gets too warm driving the motor.

73, Al N2ZHS  
Scotia, NY

In a message dated 9/6/01 1:34:11 PM Eastern Daylight Time, leon\_heller@hotmail.com writes:

<< >can anyone tell me where I can find a stepper motor and control. I wan to >add this to my loop antenna.

You'll find them in dead floppy disk drives. 5 1/4" ones would be best, because of the size. The old 8" drives had quite beefy ones, they would be ideal. You'll have to make your own controller from an AVR, PIC or whatever, and build the driver circuit. It's quite trivial. You might be able to get the driver chip out of the drive PCB, but you will have to figure out an interface for it.

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End of QRP-L Digest 2304

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